



## Fall is a Great Time at Rocky Mountain National Park

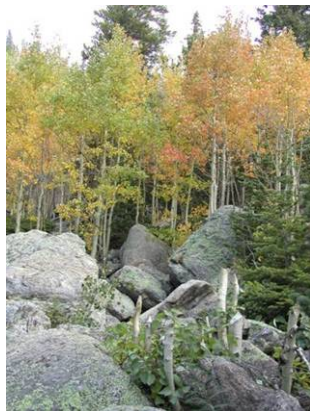
Rocky Mountain National Park is a wonderful place to experience the changing seasons. Right now, fall is on the wind. Mountaintops are receiving new snow, and Trail Ridge Road has been closed and reopened a couple of times. The park will try to keep Trail Ridge Road plowed until around Columbus Day in October. If big storms move in sooner, the road may not stay open that long. If storms hold off, it could be open longer. Park staff endeavor to keep it open as long as practical. Old Fall River Road is now closed for the season.

As always, things are busy here at the park. Dedicated employees and volunteers in every Division – Visitor & Resource Protection, Interpretation, Administration, Resources Management & Research, and Facility Management – are hard at it, working to protect and preserve this great national park. We hope you can visit here soon.

See you out in the park.

*Vaughn Baker*

Vaughn Baker  
Superintendent



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## Thank You, Forever Living Resorts

At the end of this operating season, Forever Living Resorts will end its 24 years as a National Park Service concessioner operating the Trail Ridge Store.

Managers of the Trail Ridge Store have endeavored to reflect a quality visitor experience in their merchandise and customer service. An annual evaluation noted, “the concessioner has done a wonderful job implementing the thematic merchandise plan identified to be developed and implemented.” Another annual report praised their staff for always



being friendly and helpful, and that the store placed an emphasis on selecting items made locally.

Trail Ridge Store has been applauded as an environmental leader and was credited with prompt use of green products by purchasing and using recycled products, particularly ones manufactured in Colorado. The U. S. Environmental Protection Agency recognized Trail Ridge Store and the Holiday Inn of Estes Park, its sister company, as the first hospitality properties accepted into the Agency's Performance Track Program. This program is a partnership of federal and state regulators working with members of the regulated community to address complex environmental issues as they work to protect human health and the environment. Additionally, they were accepted into the State of Colorado Leadership Program.

Forever has been a dedicated partner to Rocky Mountain National Park, and the park wishes to extend its gratitude to the management and staff of this fine company.

## Highway 7 Corridor Recreation Improvements Plan

Comments are being accepted concerning the development of a Recreation Improvements Plan for the Highway 7 corridor. The comment period has been extended to September 30, 2006.

The National Park Service's Rocky Mountain

National Park (NPS) and the U. S. Forest Service's Arapaho-Roosevelt National Forest (USFS) have formed a partnership to develop a plan that will focus on recreation improvements at Lily Lake, the Longs Peak Trailhead and the Meeker Park Campground.

The USFS administers Lily Mountain, Meeker Park Campground, and other lands lying east of Highway 7. The NPS administers Lily Lake, the Twin Sisters area, Longs Peak Trailhead, and other lands lying west of Highway 7.



In 2004 and 2005, the University of Wyoming Survey & Analysis Center conducted visitor satisfaction surveys at Lily Lake, the Longs Peak Trailhead and in Wild Basin. Over 400 people were interviewed at each location and in every month of the year. Research questions and responses will be integrated into the Environmental Assessment.

Issues/Opportunities Identified at Lily Lake include:

- Relocating Lily Mountain trailhead to a safer location.
  - Locating the Lily Mountain trailhead within the park has implications for dog owners; dogs are not permitted on trails within the park.
  - Should facilities be added to facilitate stock use?
- Need to address safety at pedestrian crossing on Hwy 7.
  - Should the visitor center be retained? If not, what are potential future uses for the building?
- Potential to develop more formal parking lots for Lily Lake and the Storm Pass and Twin Sisters trailheads.
  - Potential to add more parking spaces.
  - A trailhead parking lot for Storm Pass could be developed in the borrow pit located south of Lily Lake. This will require a new access road and accel/deaccel lanes on Highway 7.

Issues/Opportunities Identified at Longs Peak Trailhead include:

- Overflow parking extends down the county road outside the park most days during the summer.
- Only vehicle access to Camp Timberline is through the Longs Peak Campground.
  - Noise from Camp Timberline activities impacts campers.
- Potential to close the campground and expand parking.
- Potential to install entrance station to manage access and assist with enforcement of no parking along the county road.
- Potential to implement a permit system for Longs Peak to manage visitor use.

Issues/Opportunities Identified at Meeker Park Campground

- Opportunity to provide a more formal campground with upgraded amenities, including potable water, restroom facilities, picnic tables, tent pads, defined parking spaces, improved roadways.



- Potential to develop additional campsites:
  - Add up to 26 sites if Longs Peak Campground is closed?
  - The site is suitable for more campsites if desired and a market study demonstrates there is a need.
- Informal trailhead for Horsetooth Peak and Lookout Mountain at the end of county road 113N affects leaseholder cabins.
  - Potential to develop a formal trailhead that is removed from leaseholder cabins

#### Next Steps

- September 30, 2006 – Complete initial public scoping. Written thoughts, concerns and ideas need to be submitted by that date.
- Fall 2006 – Completion of field inventories at Lily Lake, Longs Peak Trailhead and Meeker Park Campground (wetlands, wildlife habitat, cultural resources, etc.).
- Fall 2006 – Development of alternatives. Public review and comment on alternatives.
- Winter 2006/2007 Development of Recreation Improvements Plan and Environmental Assessment which will evaluate environmental, cultural and social impacts of the alternatives.
- Spring 2007 – Minimum 30-day public review and comment period on the plan.

Comments need to be submitted in writing by regular mail, in person, by fax or email to:

Superintendent

Rocky Mountain National Park

Estes Park, CO 80517

Fax: (970) 586-1397

Email: [romo\\_superintendent@nps.gov](mailto:romo_superintendent@nps.gov)

- or -

Highway 7 Recreation Improvements Project

U.S. Forest Service

3063 Sterling Circle, Ste. 1

Boulder, CO 80301

Fax: (303) 443-1083

Email: [lbpramuk@fs.fed.us](mailto:lbpramuk@fs.fed.us)

Comments may also be submitted online on the NPS website: <http://parkplanning.nps.gov/> (click on Rocky Mountain National Park, Highway 7 Recreation Improvements Plan).

Agency Contacts are:

Larry Gamble, Chief of Planning & Compliance at Rocky Mountain National Park, Estes Park, CO 80517 (970) 586-1320

Laura Pramuk, Public Affairs Specialist for the U.S. Forest Service, 3063 Sterling Circle, Ste. 1, Boulder, CO 80301; (303) 245-6429.

## Groundbreaking for New Structural Fire Station

Rocky Mountain National Park has begun construction of a satellite fire station that will be available to protect park structures. This is a cooperative effort between the park, the Town of Estes Park, and property owners in the immediate area.

Rocky Mountain National Park has 367 buildings on the east side of the park. This total includes 105 quarters and 108 historic structures that are listed or eligible for listing on the National Register of Historic Places. These structures have an estimated replacement value of \$65,000,000. The park is responsible for providing structural fire protection for these facilities.



RMNP Superintendent Vaughn Baker and Staff break ground with the Estes Park Mayor, Town Administrator, Fire Chief and Town Board members

Rocky Mountain National Park does not maintain structural fire capability and relies on local fire departments for structural fire protection. Services are provided through Memorandums of Understanding. The park receives a professional level of service from the Town of Estes Park, Estes Park Volunteer Fire Department (EPVFD), which provides structural fire protection, dive rescue response, hazardous materials response, vehicle extrication, fire cause investigation and assistance with building, fire detection and alarm inspections. While the main fire station for EPVFD is relatively close to the park from a physical standpoint, it does not allow for rapid response during many months due to traffic congestion.



The Town of Estes Park sought greater support from Rocky Mountain National Park for the services it provides.

The new facility will meet the park's current need to improve wildland fire infrastructure, and will allow for satellite storage of structural fire equipment. This facility will increase the effectiveness of structural crews responding to emergencies within Rocky Mountain National Park.

The initial facility will house the park's existing wildland fire program and provide space for one structural fire engine. The proposed facility would have room for expansion to accommodate additional structural fire bays or other park needs, at the option of the Town of Estes Park. Funding for additional structural fire bays would be the responsibility of the Town of Estes Park and may include support from nearby landowners.

In compliance with the National Environmental Policy Act, an Environmental Assessment was completed with a Finding of No Significant Impact. A small groundbreaking ceremony was held on September 14. It is anticipated that the building will be completed in the spring of 2007.

## Civil Complaint Filed to Recover Damages from Grand River Ditch Breach

The United States Department of Justice, on behalf of the Department of the Interior, filed a civil complaint on August 31, 2006, in U.S. District Court in Denver, Colorado, against Water Supply and Storage Company (WSSC) in an attempt to recover damages related to the May 30, 2003, breach of the Grand River Ditch in Rocky Mountain National Park. The government's civil suit to recover damages is pursuant to the Park System Resource Protection Act, as well as a stipulation made in 1907, and renewed in 2000, between the defendant, and the United States Forest Service, regarding the operation and maintenance of the Grand River Ditch.

The Grand River Ditch is a drainage ditch that is 17 feet wide and 5 feet deep carved into the slopes of the Never Summer Range, approximately 1,000 feet above the Colorado River and Kawuneeche Valley. The ditch is approximately fourteen miles long. It originates on the south side of Baker Gulch, just outside Rocky Mountain National Park, at an

elevation of approximately 10,280 feet. The ditch cuts along the east side of the Never Summer Range within park boundaries, leaves the park at La Poudre Pass at an elevation of approximately 10,175 feet, and terminates at the Long Draw Reservoir.

### Background

In 1894, the WSSC began constructing a drainage ditch, now known as the Grand River Ditch, along the slopes of the Never Summer Range in what was at that time the Medicine Bow Forest Reserve. The Grand River Ditch captures snow melt and rain water from the east side of the Never Summer Range and diverts it over the Continental Divide at La Poudre Pass to the Long Draw Reservoir. From there, the water flows into the Cache La Poudre River, where it is further transported to water users along the Front Range and eastern plains.

In 1907, a duly authorized agent of WSSC entered into a stipulated agreement with the United States Forest Service for a right of way through the Medicine Bow Forest Reserve for a "conduit" that would later be known as the Grand River Ditch. The 1907 stipulation requires WSSC to pay the United States for any and all damage sustained by reason of use and occupation of the forest reserve by the company regardless of the cause and circumstances under which such damage may occur.

In 1915, Rocky Mountain National Park was established. In 1930 portions of the Medicine Bow Forest Reserve, including the portions of the Never Summer Range through which the majority of the Grand River Ditch flows, were added to Rocky Mountain National Park. In a February of 2000 the United States and WSSC agreed that the 1907 Stipulation remains in full force and effect and that the National Park Service is a successor-in-interest of the United States Forest Service with regard to the 1907 Stipulation.

### Civil complaint

On or around May 30, 2003, the Grand River Ditch breached approximately 2.4 miles south of La Poudre Pass, within the boundaries of the Rocky Mountain National Park. The breach was caused by water backing up in, and eventually overtopping, the ditch, as a result of excess accumulated snow, ice and other debris in the ditch. Approximately 105 cubic feet per second of water from the Grand River Ditch emptied through the breach and plunged to the valley below. Water flowing through the breach excavated a gully



measuring approximately 167 feet wide and 60 feet deep. A large portion of the mountainside below the breach was washed to the valley floor by the erosive power of water, rock, mud and vegetation. The breach caused significant damage to an old growth lodgepole and spruce/fir forest, Lulu Creek, the upper Colorado River, and associated wetlands, all within the



The Grand Ditch breach

boundaries of Rocky Mountain National Park.

The breach caused over 60,000 cubic yards of sediment to flow into the upper Colorado River and associated wetlands. Much of the upper Colorado River watershed within Rocky Mountain National Park was closed to visitors until water levels receded and damage to trails,

bridges, and campsites could be repaired.

### Relief

The government's complaint alleges that while under the operation and control of the Water Storage and Supply Company, water from the Grand River Ditch breached the banks of the ditch, causing extensive destruction of, loss of, and injury to a subalpine forest, Lulu Creek, the upper Colorado River, wetlands (and associated flora and fauna), trails, bridges and campsites within Rocky Mountain National Park.

The government is asking that the court hold the defendant responsible for all response costs and damages, including interest and costs associated with the breach. In the event that the defendant is unable to pay to restore the damage, the government has also asked the court to condemn the Grand River Ditch so it can be sold to pay such judgment.

The case is being handled by James Freeman, with the Environmental Enforcement Section of the Department of Justice, and United States Attorney Troy Eid of the District of Colorado.



## Shuttles are Popular with Visitors

Shuttle buses bustled through the Bear Lake Corridor and into Estes Park this summer. All routes were popular with park visitors.

### Experimental Shuttles were Hugely Successful

This summer Rocky Mountain National Park and the Town of Estes Park partnered with an experimental



Hiker Shuttle that ran from the new Town of Estes Park Visitors Center to the park's Beaver Meadows Visitor Center, and onto the Park & Ride. This was the first year of the three-year experiment. A park pass was required to board the bus. Passes

were available for purchase at new automated fee machines located at the Town of Estes Park Visitors Center and the Beaver Meadows Visitor Center. In conjunction with the new Hiker Shuttle, the Town of Estes Park also experimented this summer with a free Shopper Shuttle.

This enhanced shuttle service proved to be popular with visitors. In all, 9,323 people rode the Hiker Shuttle and 18,764 people rode the Shopper Shuttle during its inaugural season, which ran from the first of July through Labor Day weekend. Written comments received by the park were overwhelmingly complimentary. Visitors enjoyed the convenience of not driving themselves, comfortable buses, and friendly drivers.

The park and the Town are excited about the success of the first year of this three-year experiment, the first of its kind in the area.

### Bear Lake Corridor Routes Continue to be Popular

Shuttle services continued this summer within the park. From the Park & Ride, shuttles took visitors to Bear Lake (with stops along the way at Bierstadt and Glacier Gorge Trailheads), and to the Fern Lake Bus Stop (with stops along the way at Glacier Basin Campground, Hollowell park, Tuxedo Park, Moraine Park Museum, Moraine Park Campground and the Cub Lake Trailhead). As of September 11, 2006, a total of 251,292 passengers had ridden the shuttles. Shuttle service continues on a daily basis through October 1.



Riding the shuttle provides an opportunity for visitors to reduce their fuel consumption and traffic and parking congestion, and lets them enjoy the ride and views without driving themselves.

## Project Updates

### Timber Creek Campground Amphitheater

The park's west slope campground, Timber Creek, is approximately 10 miles north of the Grand Lake entrance. A new amphitheater, including a fire ring area with seating, new audio-video equipment, and a paved accessible route with a maximum 4.9% grade,



*Photo courtesy of Curt Buchholtz, RMNA*  
The new Timber Creek Campground Amphitheater is progressing rapidly and is expected to be done this fall.

is being constructed. It is scheduled to be completed this October. The new log and stone facility is designed to last at least a

hundred years without needing major maintenance. The park is grateful to the Rocky Mountain Nature Association for raising nearly \$500,000 in donations for the amphitheater reconstruction.

### Lake Irene Trail and Picnic Sites

Located along Trail Ridge Road south of Milner Pass, the beautiful Lake Irene area provides access to picnic tables and a short trail for visitors to stretch their legs. Increased visitation raised significant issues concerning both visitor use and safety and resource damage. A sustainable, user-friendly trail down to the lake and for 300 yards beyond to a nice overlook is being constructed, in addition to eight new picnic sites, three of which are accessible. The park is grateful that funding for this project is being provided by the Rocky Mountain Nature Association, which is currently raising the \$110,000 in donations needed to complete this



Many volunteer organizations have assisted the park Trail Crew with the Lake Irene project. Here the Larimer County Youth Corps helps out.

worthwhile rehabilitation work. In honor of Public Lands Day on September 30, the park is coordinating a volunteer effort to help finish the Lake Irene Trail.

### Lumpy Ridge Trailhead

The new Lumpy Ridge Trailhead will include a



The new Lumpy Ridge Trail under construction

parking area and trail. The trail will join into the existing trails on Lumpy Ridge that go to Gem Lake and climbing routes on Twin Owls and other rock formations. Also, a trail segment will be built that connects Devils Gulch road with the new parking lot. After several years of consultations with adjacent landowners and public input, the

Lumpy Ridge Trailhead is

under construction. The new trail segments are approximately 60% done and construction will begin again in October after taking a break during July-September as this crew helped with the Loch Vale project. When this project is completed next spring, the current Twin Owls and Gem Lake Trailheads will be eliminated. Parking lot construction, per agreement with adjacent landowners, was shut down for the summer but has resumed.

The proposed opening date for the new Lumpy Ridge Trailhead area is Memorial Day 2007.

### A helicopter to assist projects

Starting on Monday, September 25, Rocky Mountain National Park staff are conducting helicopter operations to fly tread material to two trail locations. The Glacier Gorge parking area is the base of operations for this project and will be closed during this time. Bear Lake Road and area trails will remain open, with some possible minor delays as the helicopter flies over certain areas. The short trail leading from the Glacier Gorge parking area will be closed when the Glacier Gorge parking lot is closed. Access to Alberta Falls, Mills Lake and the other network of trails in the area will be available from the Bear Lake parking area.

This project is the culmination of two large trail reconstruction projects - the Nymph Lake to Emerald Lake trail and the Loch Vale to Sky Pond trail. The helicopter will transport trail tread material, which is a



gravel and dirt mixture. According to Dave Larsen, Trails Supervisor for the park, “This material is used to ‘top off’ built trail structures such as rock walls, waterbars and other erosion control structures. Along with the built structures, this material allows the park’s trail crew to provide a sustainable and user-friendly trail for two popular trails as well as lessening impacts from erosion.”

Rocky Mountain National Park is managed as recommended wilderness. Therefore, all management decisions affecting wilderness must be consistent with the “minimum requirement concept.” The minimum requirement concept reviews whether a proposed management action is appropriate or necessary for administration of the area as wilderness, does not pose a significant impact to wilderness resources and character and that the techniques and types of equipment minimize impact to wilderness resources and character. For this project it was determined by park staff that using a helicopter to fly in 200 tons of material in 7 to 10 days had a minimum impact compared to the estimated 250 days of packing tread material by mules or digging up the material on site.

Funding for these trail projects is from a variety of sources including Rocky Mountain Nature Association donations and park fees.

### **Loch Vale/ Sky Pond Trail**

Trail crews are putting in the final trail structures (checks, waterbars, walls, and causeways) after three seasons of extensive work between the outlet of The Loch all the way up to Sky Pond. When the tread material is added, the final trail will be more user friendly, even in wet conditions; be more sustainable over many years, thereby reducing maintenance costs; and will protect the adjacent resources. The material flights could take about 3-4 days to The Loch trail using Glacier Gorge parking lot as the base of operations.



### **Dream to Emerald Lake trail**

For efficiency and to lessen impacts to visitors from the use of a helicopter, the park waited until this fall to also fly in the final tread material to this trail. This trail has been worked on sporadically the last 10 years with a focused effort during the 2004-05 seasons to



A helicopter picks up tread material at the Glacier Gorge parking area

complete all the necessary trail structures (checks, waterbars, walls, and related structures). With the addition of the icing on the cake delivered by helicopter - the gravel/dirt mixture of tread material - this trail will be a huge improvement from the previous rough, braided, unsafe 'trail' that visitor had to hike between Dream and Emerald Lakes.

### **American Conservation Corps**

The American Conservation Corps (ACC) concluded its successful work season on August 5. The crew worked with many Divisions in the park, with the bulk of their time spent working on trail-related projects including the Lake Irene project, the Loch Vale project, the new Lumpy Ridge trail, and doing maintenance by clearing downed trees, cleaning waterbars/dips, and brushing overgrowth on various trails in the park. The crew also built buck and rail fencing, scraped and painted buildings, and worked with the greenhouse and Road Hog crews. They participated in various trainings and seminars (including backcountry/wilderness, first aid/CPR, stream ecology, butterflies, and natural history). Everyone benefited again from this program: the students in being exposed to work and potential careers in a national park and the park from all the productive work accomplished by these young people.

This year was the 4<sup>th</sup> of a 6-year commitment for the American Conservation Corps to work in the park. Rocky Mountain Nature Association obtained a grant through the Daniels Fund to sponsor this corps of six college students and a crew leader to work in the park from early June through early August. The park appreciates the financial support from the Rocky Mountain Nature Association (RMNA), made possible by donations to their organization. The goal of the Conservation Corps is to expose financially disadvantaged students interested in natural resource



conservation to rigorous service work while providing a positive educational experience in the field.

The Daniels Fund was founded in 1998 by cable entrepreneur Bill Daniels. It serves populations in Colorado, Wyoming, New Mexico, and Utah.

## Fall / Winter Pile Burning Operations

Fire managers from Rocky Mountain National Park plan to take advantage of the upcoming cooler temperatures and more favorable fall weather conditions to burn piles of slash from several forest thinning projects.

Exclusion of fire for the past century has resulted in unnatural forest conditions in some areas, with significant accumulations of forest fuels and an increased risk of a wildfire.

Excess vegetation was cut and piled by park fire crews and contractors last year. The piles, which are now dry enough to burn, are located on the northeast shoulder of Deer Mountain, in the Moraine Park storage area, the Glacier Basin administrative use area, south of Mill Creek Ranger Station and west of Glacier Creek, and in the Grand Lake area. The piles in the Grand Lake area are located in the housing and utility area, along the Grand Lake Lodge road and west of the Tonahutu/ North Inlet trail along the park boundary.

Pile burning operations will begin as early as conditions permit and continue into the winter as weather permits. These projects will help to restore the natural role of fire to the ecosystem.

Safety factors, weather conditions, air quality and environmental regulations are continually monitored as a part of any fire management operation. For more information please contact the park's information office at 970-586-1206.

## Precipitation Levels

Through August, 2006, precipitation on the east side of Rocky Mountain National Park was 95% of average, with 12.19 inches. The west side was 79% of average, with 9.81 inches.



## Hunting Camps and Game Drives

What is a game drive? It is a structure built from rocks, wood, and brush on the alpine tundra by Native Americans. Women and children would scare the elk and carefully drive them toward a converging funnel of low rock walls. These walls funneled the animals toward hunters who were hiding behind semicircular blinds built of rocks and brush.

Driving game into an enclosure was a successful way to hunt elk as witnessed by the presence of about 40 hunting camps and at least 10 game drives in the alpine areas of the park. Most of these drives were discovered in the last few years. About 50 drives have been documented in the Indian Peaks Wilderness to the south, all the way to Rollins Pass.

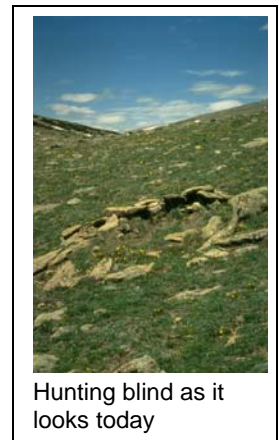
These drives were used from nearly 5,000 years ago to the late 1700s when the Indians obtained horses. The game drives were probably used in late August and early September before the elk moved down to lower elevations. The elk were at their fattest at this time of year, and berries and edible plants were also ripe and abundant, so enough food was available for large

groups of people to gather in one place to run the drives. After the elk were killed, the people may have done some butchering and drying above treeline, but they probably moved the meat to camps below treeline out of the wind and where water and wood was available for fires and shelter. The availability of large quantities of meat and berries allowed for making pemmican (Indian granola bar -- but much more nutritious) and gathering food for the winter.

The gathering of many people in the fall of the year was a time to visit with relatives and friends, seek mates, trade, tell stories, and conduct ceremonies. As winter approached, people moved out of the high country and into the warmer areas along the Colorado Front Range and into Middle and North Parks.

*By Park Archeologist Bill Butler*

*Touch the earth, love the earth, honour the earth,  
her plains, her valleys, her hills, and her seas; rest  
your spirit in her solitary places. - Henry Beston*



## The National Park Service Launches New Website

Planning a visit to a National Park Service (NPS) site just became a little easier with the launch of the new [www.nps.gov](http://www.nps.gov) website. The redesigned site was unveiled for the 90th anniversary of the NPS on August 25.

The new homepage allows each of the country's 390 NPS units to be searched by name, location, topic, or activity. Each park's expanded website contains park trivia, updated information, and enhanced multimedia including video and graphics. Several parks have live webcams constantly displaying significant features such as Longs Peak here in Rocky and the Old Faithful Geyser in Yellowstone National Park.

"The new website design allows people to better explore the country's national parks from the comfort of their homes," said NPS Director Fran Mainella. "The in-depth information available can be used to plan all aspects of a trip to a park. In addition, the website is a useful tool for educators and students researching topics and anyone else interested in learning about our amazing national parks."

The website is one of the most popular in the government with an average of two million pages viewed each day. The design and navigation advancements are based on user experience and visitor feedback. Changes reflect the discovery that 80% of the site's traffic is devoted to trip planning. Each site is now linked to state tourism offices and other area attractions.

Rocky Mountain National Park's webmaster Kathleen Kelly said, "the new website is intended to be a virtual visit to the park. All NPS sites will have the same format to help visitors navigate similarly. Hopefully the new NPS website will be easier for visitors to navigate." Also, Kathleen noted that many people contributed to getting this new website completed. At Rocky, the former website was over 1,200 pages. It was a huge task to convert the pages to the new format, and it's still not finished. Kathleen is grateful for volunteer Lois Sumey's help; without it, the new park website would never have been ready to launch on time.

The evolution of [www.nps.gov](http://www.nps.gov) will continue in the coming months with improvements to the History & Culture, Nature & Science, and For Kids and Teachers sections joining the new NPS home page and park websites.

## August 2006 Public Use Report for Rocky Mountain National Park



Rainy weekends in August may account for the drop in visitation over August 2005. However, Labor Day weekend was beautiful and volume at the entrance stations increased 15% compared to last year's Labor Day weekend.

### Percent Change

Current Calendar Year to Date Total Number of Visitors	<u>2,166,758</u>	<u>(0.20)%</u>
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Previous Calendar Year to Date Total Number of Visitors	<u>2,171,031</u>
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Current Month Number of Visitors	<u>516,531</u>	<u>(7.16)%</u>
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Same Month One Year Ago Number of Visitors	<u>556,353</u>
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## Update on Bark Beetles

Bark beetles are native insects that have shaped the forests of North America for thousands of years. The effects of bark beetles are especially evident in recent years in and around Rocky Mountain National Park (RMNP) with a severe epidemic of mountain pine beetle (*Dendroctonus ponderosae*) occurring in Grand County. Over the last eight years, mountain pine beetles have killed most of the large diameter lodgepole pine trees in outbreak areas within Grand County. In some areas, mountain pine beetles have attacked trees as small as three inches in diameter. Additionally, beetle-caused mortality on the east side of the park within Larimer and Boulder counties appears to be on the increase.

### Natural History

Bark beetles range from Canada to Mexico and can be found at elevations from sea level to 11,000 feet.

There are 17 native species of bark beetles in the family *Dendroctonus* and *Ips* known to occur in RMNP that have evolved with the local forest ecosystem. Periodic outbreaks of native bark beetles have occurred

Mountain Pine Beetle,  
*Dendroctonus ponderosae*, adult

USDA Forest Service – Region 4  
Archives, USDA Forest Service,  
[www.forestimages.org](http://www.forestimages.org)



throughout the history of the park. Though bark beetles cause a substantial loss of trees, they are recognized as part of “natural conditions.”

Preservation of natural conditions is specifically mentioned within the park’s enabling legislation. In the park’s backcountry, which comprises about 95% of the park, bark beetle populations are allowed to fluctuate under natural processes. In addition, there is no effective means of controlling a large beetle outbreak in such a vast area. In the remaining 5% of the park, which includes areas such as roadways, campgrounds, visitor centers, employee housing, picnic areas and historic sites, bark beetles are actively managed to protect high-value trees. High-value trees are important for shade, visual screening, cultural significance, and outstanding visual quality. Also within this area, the park removes beetle-killed trees that could topple and pose a threat to public safety, employee safety or property.

*Dendroctonus* species bark beetles generally attack trees June through August but can attack trees starting in April all the way into September. Female bark beetles seek live green trees and typically attack on the lower 30 feet of the trunk. Females initiate a “mass attack” on a tree by means of a pheromone (a message-bearing chemical) that attracts mates and other females. During an attack, the adult beetles will seek cracks and crevasses between bark plates where they bore through the bark to gain access to the phloem (or vascular system) of the tree. Once they’ve entered the tree, the beetles will bore tunnels (or galleries) within the phloem where they will lay their eggs. An individual female may lay in excess of 100 eggs. Following egg hatch, larvae feed in the phloem layer of the tree. Beetle eggs hatch in the fall and the larvae will spend approximately 8 months feeding within the tree before transforming into pupae. Emergence of new adults can begin in mid-June, where they will once again repeat this process. Under normal circumstances, beetles attack large diameter trees, usually over eight inches, but in severe epidemics, trees as small as three inches may be attacked.



Ponderosa Pine with pitch tubes

An infected tree will have pitch tubes on its trunk and boring dust (frass) at the base of the tree. Sometimes the tree will be successful in repelling or “pitching out” beetles and beetles are occasionally found imbedded in a pitch out. Solely relying on pitch tubes to determine if a tree contains live beetles is not always reliable. Frass found at the base of a tree that contains pitch tubes indicates beetles were successful in entering the tree, and it is very likely the tree will succumb to the beetle attack. Removing a small piece of bark at a pitch tube to check for live beetles or larvae in bore tunnels can be done to verify if beetles are present.

A key part of this cycle is the transmission of blue stain fungi (*Ceratocystis*). Spores of these fungi are carried from infested trees to healthy trees by the bark beetles. Fungi growing within the tree and the galleries constructed by the beetles interfere with the tree’s ability to transmit water and nutrients from the roots to the crown and contribute to tree mortality.

## Current Situation

The acreage of bark beetle infestations within RMNP has increased significantly in Grand County and is increasing in Larimer and Boulder counties.

Thousands of acres within the park have individual or large groups of dead trees with some areas of old growth lodgepole pine



Beetle-killed lodgepole pine trees near Grand Lake

*Photo courtesy of Debbie Mason*

showing almost a 100% mortality rate. Drought conditions, mild winters, dwarf mistletoe infestations, dense late seral mature forest stands, and a lack of wildland fires have contributed to the outbreak.

Several species of bark beetles are presently killing lodgepole pine, ponderosa pine, limber pine, Engelmann spruce, subalpine fir and Colorado blue spruce. It is anticipated that large numbers of old growth trees in the park will succumb to bark beetles in the next decade.

Bark beetles are part of the natural processes that occur within the national park and beetle-killed trees do provide benefits to the ecosystem, including habitat




for woodpeckers and other cavity nesting birds, and woody debris in aquatic habitats that benefit fish.

Although part of a natural process, beetle-killed trees can threaten the safety of the public and park employees and can cause property damage if weakened trees topple. Also, beetle-killed trees contribute to forest fuels that can modify wildland fire behavior.

### Management Approach

A Bark Beetle Management Plan for RMNP was approved in July 2005. The management plan allows bark beetles to continue their natural life cycle in backcountry areas of the park. In developed areas of the park, the following Integrated Pest Management Techniques are being used:

1. Sanitation: Removal of trees containing live beetles in high priority areas when populations of beetles are low, and destroying the beetle in all life forms by burning. Burning techniques used in the park include pile burning or using an air curtain burner.

Air curtain burner
2. Insecticide: The goal of insecticide application is not to kill bark beetles but to repel them and prevent them from attacking healthy trees. Carbaryl will be used as a repellent to protect high value trees in areas such as campgrounds, housing areas, picnic areas, historic sites and other public use areas. The insecticide is applied using a sprayer mounted on a truck or All Terrain Vehicle (ATV) and is applied only to the trunks of individual high-value trees.
3. Hazard Tree Removal: Beetle-killed trees that pose a hazard will be removed to protect employee and visitor safety. Examples include tree removal at the Timber Creek, Moraine Park and Glacier Basin campgrounds.
4. Pheromone Packets: Anti-aggregation pheromones such as Verbenone may be effective where attacks are likely. However, a literature search and consultation with USDA Forest Service entomologists revealed that the

pheromone is not effective in severe epidemics. No pheromone packets were used in 2006.

5. Education and outreach: RMNP will continue to work with park neighbors, both public and private, as the outbreak continues and in the years ahead as we deal with the long term consequences.

### Work Accomplished In 2006

RMNP spent over \$100,000 managing bark beetles in developed areas of the park. The following work was completed:

- Sanitation: Approximately 600 trees containing live beetles were removed from the Colorado River District at the housing and utility area, around the Kawuneeche Visitor Center, Green Mountain housing area, Timber Creek campground, and Holzwarth Ranch. Trees were hauled to the Pontiac Pit within the park and pile burned or burned in an air curtain burner. A total of 50 beetle infested trees were removed from developed areas on the east side of the park and pile burned.
- Insecticide: 1,000 high-value trees in the Colorado River District and 100 trees on the east side of the park were sprayed with Carbaryl in May. Trees that were sprayed in 2006 were not attacked by bark beetles.
- Hazard Tree Removal: Approximately 200 hazard trees were removed from developed areas of the park. Many of the trees were previously killed by bark beetles.
- Assessment: Aerial and ground surveys indicate that bark beetles in the Colorado River District are still at epidemic levels and are significantly increasing on the east side of the park.

### Recommendations For 2007

As in 2006, high value trees around visitor centers, entrance stations, trailheads, historic sites, picnic areas, campgrounds and employee housing will be selected by park staff for insecticide application. For continued protection, trees must be sprayed each year until the epidemic has subsided. Park staff have been consulting with entomologists from the USDA Forest Service Forest Health Management office in Lakewood, Colorado, which will advise park staff when the epidemic has subsided to the point that insecticide spraying can be suspended.



Hazard trees will continue to be removed from the above mentioned areas, as deemed necessary. As in 2006, hazard trees will be identified and removed by park employees.

Sanitation will continue at the Holzwarth Historic Site and within areas on the east side of the park.

## Park Welcomes New Colorado River District Staff

Two new District Supervisors have joined the Rocky Mountain National Park Colorado River District (CRD), which is generally the area on the west side of the Continental Divide and the Cache la Poudre River drainage.

Michele Simmons is the new District Interpreter. Michele came to Rocky in April from Sitka National Historical Park in Alaska, where she was the Chief of Interpretation. She started in Sitka in July 2001, and was promoted to the Chief position. She has worked with tribes, community leaders, numerous partners (including Alaska Natural History Association), has managed a \$600,000 budget and a fair sized (80) volunteer program. Between November 2002 and February 2003, she worked two days per week from her home park on a detail for the National Park Service's Mather Training Center as an editor with the Interpretive Development Program (IDP). She has served as a certifier in the IDP program and an interpretive instructor. Other NPS areas Michele has worked at include Lake Mead National Recreation Area, Lava Beds National Monument, and Death Valley National Park. Michele has a BS in Avian Science from University of California, Davis.

Michele's husband John is a former National Park Service interpreter and is now working for the Arapaho National Forest in Granby. Son Kenny is now 2 ½. While attending a training session in Denver last year, she and her family spent time in Rocky and fell in love with the area. John had visited the park on many occasions. They are looking forward to being able to snowshoe and cross country ski.

Mark is the new District Ranger. Both Mark McCutcheon and his wife Mary have been employed



with the NPS since the mid 70s and collectively have 60 years in the Service! They both began their careers at Mount Rainier and met each other there. Most recently they came from the North Rim of the Grand Canyon, where Mark was the North District Ranger and Mary was the Administrative Assistant doing budget for all Divisions. The great majority of their NPS experience has been in the western theater including Olympic, Rainier, Yellowstone, Lassen, and Grand Canyon National Parks. Both Mary and Mark worked here at Rocky as seasonals in 1980 and 81. Mark said, "We were impressed with this park's quality of personnel and employee support system then as we are now. We are exceptionally happy to be here!"

Both Michele and Mark work in the Kawuneeche Visitor Center area just north of Grand Lake.

## National Park Service Distributes Federal Funding To Local Volunteer Fire Departments

Rocky Mountain National Park is distributing \$67,600 in federal funding this year to assist four local volunteer fire departments - Allenspark, Estes Park, Glen Haven and Grand Lake. The Rural Fire Assistance and Community Fire Assistance programs are part of the National Fire Plan approved by Congress six years ago.

"We are pleased to be able to assist our neighboring communities become better prepared to deal with wildland fire protection issues," said Superintendent Vaughn Baker. "It is critical that we all work together to protect local communities and park visitors from potentially dangerous wildfires."

The Rural Fire Assistance (RFA) program is designed to increase firefighter safety and enhance the fire protection capabilities of rural fire departments that assist park fire crews with suppression duties. The Community Fire Assistance (CFA) program provides support to help local communities prepare for wildland fires. These programs have allowed for the distribution of \$286,250 to local communities since the National Fire Plan was approved.

Steve Childs, Chief, Glen Haven Area Volunteer Fire Department said, "The National Park Service RFA funding that has been generously made available to small rural fire departments is not only important, but critical, in terms of those departments' ability to



maintain an appropriate level of readiness. This year's funding will allow Glen Haven Fire to purchase three mobile radios which are compatible with the new systems now being used by the National Park Service and the US Forest Service. Without this funding, Glen Haven would have had to budget out two or three years in order to purchase them. As we add new members to the department, it is incumbent on us to provide the standard protective clothing and tools to keep them safe. RFA funding is invaluable to us in that continuing effort."

Scott Dorman, Chief, Estes Park Volunteer Fire Department said, "These grant funds will help us in our efforts to fight wildland fires safely and efficiently. The funds are for firefighter continuing education and for replacing some of our worn-out equipment. On behalf of the Estes Park Volunteer Fire Department, I would like to thank the National Park Service for their continued support to local agencies. Without this support we would not be able to provide the high level of wildland fire suppression capabilities that our community needs."

Mike Long, Fire Chief, Grand Lake Fire Protection District said, "We have enjoyed an extraordinary relationship with the park over the years. As one of the primary response agencies into the park we have long felt this type of relationship is critical to providing the same level of service to park employees and visitors as we provide to our own community. The 2006 RFA grant award will provide our volunteer and staff firefighters with two emergency radios compatible with park frequencies and additional

wildland specific personal protective equipment in the form of line gear, Nomex pants, helmets and new generation fire shelters. Monies are also covering the cost of hosting a Wildland Firefighter course and Wildfire Power Saws courses."

The Rural Fire Assistance program is operated on a cost-share basis. Fire departments serving a community with fewer than 10,000 inhabitants are eligible for funding and must contribute a 10 percent share of the grant total, including in-kind labor. Fire departments may use the funding to conduct training and purchase wildland fire equipment and supplies.

The Grand Lake, Estes Park and Allenspark Fire Protection Districts have received Community Fire Assistance funding to begin the process of preparing Community Wildfire Protection Plans. The Colorado State Forest Service has also been awarded funding to help coordinate interagency fire education and outreach programs in the Estes Valley. Please contact Sue Pinkham at the Estes Park Fire Station, 577-0900 ext. 24, for further information or assistance with fire related programs.



Today is your day!  
Your mountain is waiting.  
So...get on your way.

— Dr. Seuss

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## Featured in this issue:

**Water Ouzel** (masthead), also called American Dipper (its proper name). These birds are found in and around rushing mountain streams, where they bob up and down, or 'dip.' Their territories are along waterways, and do not extend beyond into adjacent lands. Uniformly sooty gray, ouzels are adapted to life in the stream with water-repellent oils in their feathers, third eyelids to protect their eyes, and flaps that close over their nostrils to keep out water. They walk and even 'fly' underwater, propelling themselves as they look for aquatic insects, insect eggs and fish eggs. On occasion they will eat very small fish. Ouzel Falls, Creek, Lake and Peak are named for this interesting park resident.

**Rocky Mountain Fringed Gentian** (page numbers). Considered by many to be the last flower of summer, the fringed gentian graces upper montane and subalpine meadows with brilliant deep blue flowers. Other identifiers are their tubular shape, four fringed petals and lack of fragrance.

